

## EAST Search History

| Ref # | Hits | Search Query  | DBs                | Default Operator | Plurals | Time Stamp          |
|-------|------|---|--------------------|------------------|---------|---------------------|
| S1    | 7    | (sueoka and tsukuda).in.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/06<br>15:57 |
| S2    | 0    | (nakajima and yashiro and tsukuda).in.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/06<br>15:59 |
| S3    | 0    | (ito and yamasita and tsukuda).in.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/06<br>16:00 |
| S4    | 0    | ("aromatic polyamide film and magnetic recording").ti.  | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/06<br>16:01 |
| S5    | 39   | ((heat or heating) same (shrink or shrinkage) and ("heat treatment" and "no tension") and "Young's"                                   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/06<br>16:05 |
| S6    | 0    | ("428"/\$ or "528"/\$ or "360"/\$).ccls. and ("heat shrinkage" or "thermal shrinkage") same (min or minutes) and "aromatic polyimide" | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/08<br>16:44 |
| S7    | 0    | ("428"/\$ or "528"/\$ or "360"/\$).ccls. and ("heat shrinkage" or "thermal shrinkage") and "aromatic polyimide"                       | US-PGPUB;<br>USPAT | OR               | OFF     | 2008/06/08<br>16:46 |
| S8    | 38   | ((heat or thermal) same (shrink or shrinkage) and ("heat treatment" and "no tension") and "Young's"                                   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/08<br>16:47 |
| S9    | 39   | ((heat or heating) same (shrink or shrinkage) and ("heat treatment" and "no tension") and "Young's"                                   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/08<br>16:47 |
| S10   | 1    | S8 not S9   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/08<br>16:47 |
| S11   | 1    | (tsukuda and ieki and nakajima).in.   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/08<br>17:16 |
| S12   | 340  | ((heat or thermal) same (shrink or shrinkage) and ("heat treatment" and "tension") and "aromatic polyamide"                           | US-PGPUB;<br>USPAT | OR               | ON      | 2008/06/08<br>17:19 |

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|-----|-----|---|-----------------|----|----|------------------|
| S14 | 0   | S12 and ((".degree. C") with "tension")   | US-PGPUB; USPAT | OR | ON | 2008/06/08 17:22 |
| S15 | 74  | S12 and (("no" or without) with "tension")  | US-PGPUB; USPAT | OR | ON | 2008/06/08 17:22 |
| S16 | 25  | S15 and "magnetic recording".ab.  | US-PGPUB; USPAT | OR | ON | 2008/06/08 17:23 |
| S17 | 49  | S15 not S16   | US-PGPUB; USPAT | OR | ON | 2008/06/08 17:34 |
| S18 | 0   | ((heat or thermal) same (shrink or shrinkage)) and ("heat treatment" and "tension") and "aromatic polyamide" and (".".alpha.MD") and (".".alpha.TD" ) | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:42 |
| S19 | 0   | "aromatic polyamide" and (".".alpha.MD") and (".".alpha.TD" )   | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:44 |
| S20 | 0   | polyamide and (".".alpha.MD") and (".".alpha.TD" )  | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:44 |
| S21 | 0   | ((heat or thermal) same (shrink or shrinkage)) and ("heat treatment" and "tension") and "aromatic polyamide" and (".".alpha.MD") and (".".alpha.TD")  | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:44 |
| S22 | 0   | (".".alpha.MD") and (".".alpha.TD")   | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:45 |
| S23 | 0   | ".alpha.MD" and ".alpha.TD"   | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:45 |
| S24 | 1   | "6376043".pn.   | US-PGPUB; USPAT | OR | ON | 2008/06/09 13:57 |
| S25 | 1   | "20070082232".pn.   | US-PGPUB; USPAT | OR | ON | 2008/06/09 14:07 |
| S26 | 1   | "20030235715".pn.   | US-PGPUB; USPAT | OR | ON | 2008/06/09 18:24 |
| S27 | 0   | "aromatic polyamide" and "hydroscopic expansion"  | US-PGPUB; USPAT | OR | ON | 2008/06/11 16:10 |
| S28 | 30  | "aromatic polyamide" and "hygroscopic expansion"  | US-PGPUB; USPAT | OR | ON | 2008/06/11 16:11 |
| S29 | 11  | S28 and "Young's"   | US-PGPUB; USPAT | OR | ON | 2008/06/11 16:20 |
| S31 | 621 | FALASCO.xa.   | US-PGPUB; USPAT | OR | ON | 2008/06/12 14:14 |

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| S32 | 4  | "5874519"   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/13<br>14:24 |
| S33 | 50 | ("5948554" "6251196"<br>"6287530" "6291052"<br>"6399147" "6444328"<br>"6632520" "6806804"<br>"6853473"<br>"20030137718"<br>"20030211360"<br>"20040041679"<br>"20060215330"<br>"20070082232"<br>"5815060" "3920988"<br>"4087291" "4090892"<br>"4115106" "6251556"<br>"6323298" "6413327"<br>"6421519" "6435263"<br>"6466320" "6472488"<br>"6475302" "6537463"<br>"6682834" "7158354"<br>"7168177" "7229706"<br>"7286025" "7358638"<br>"7364628"<br>"200100020495"<br>"20020014321"<br>"20020037441"<br>"20020084001"<br>"20020171311"<br>"20040141260"<br>"20040149357"<br>"20040218311"<br>"20050168089"<br>"20060006956"<br>"20070160875"<br>"20070193504"<br>"6231778" "5031186"<br>"6258890" ).pn. | US-PGPUB;<br>USPAT | OR | ON | 2008/06/13<br>16:02 |
| S34 | 1  | "5874519".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>14:43 |
| S35 | 1  | "6376043".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:49 |
| S36 | 0  | "2001000871".pn.  | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:50 |
| S37 | 1  | "20010008714".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:50 |
| S38 | 1  | "6274220".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:52 |
| S39 | 1  | "6210775".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:53 |
| S40 | 1  | "4645702".pn.   | US-PGPUB;<br>USPAT | OR | ON | 2008/06/14<br>16:54 |

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| S41 | 1    | "20030235715"  | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/16<br>17:02 |
| S42 | 0    | "200700033798"   | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/16<br>21:08 |
| S43 | 1    | "20070003798"  | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/16<br>21:08 |
| S44 | 245  | (428/847 or 428/847.1<br>or 428/847.4 or<br>428/847.8 or<br>428/848.8).ccls.   | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:23 |
| S45 | 1678 | (528/310 or 528/324).<br>ccls.   | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:25 |
| S46 | 0    | (S44 or S45) and ((heat<br>or thermal) same<br>(shrink or shrinkage))<br>and ("heat treatment"<br>and "tension") and<br>"aromatic polyamide"<br>and ("alpha.MD") and<br>("alpha.TD")                             | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:25 |
| S47 | 0    | (360/131 or 360/134 or<br>360/135).ccls. and<br>((heat or thermal) same<br>(shrink or shrinkage))<br>and ("heat treatment"<br>and "tension") and<br>"aromatic polyamide"<br>and ("alpha.MD") and<br>("alpha.TD") | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:26 |
| S48 | 0    | (428/141 or 427/128).<br>ccls. and ((heat or<br>thermal) same (shrink<br>or shrinkage)) and<br>("heat treatment" and<br>"tension") and "aromatic<br>polyamide" and ("alpha.<br>MD") and ("alpha.TD")             | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:27 |
| S49 | 1    | "6797381".pn.  | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>14:38 |
| S50 | 2    | "6797381".pn.  | USPAT; EPO;<br>JPO; DERWENT | OR | ON | 2008/06/17<br>14:39 |
| S51 | 1    | "20070003799"  | USPAT; EPO;<br>JPO; DERWENT | OR | ON | 2008/06/17<br>16:18 |
| S52 | 1    | "20070003799"  | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>16:19 |
| S53 | 1    | "20070009768"  | US-PGPUB;<br>USPAT          | OR | ON | 2008/06/17<br>16:21 |
| S54 | 2117 | (360/131 or 360/134 or<br>360/135).ccls.   | US-PGPUB;<br>USPAT          | OR | ON | 2008/12/23<br>18:28 |

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| S55 | 4141 | (428/141 or 427/128).ccls.  | US-PGPUB; USPAT | OR | ON | 2008/12/23 18:28 |
| S56 | 7773 | (428/141 or 428/847 or 428/847.1 or 428/847.4 or 428/847.8 or 428/848.8 or 528/310 or 528/324 or 360/131 or 360/134 or 360/135 or 427/128).ccls.  | US-PGPUB; USPAT | OR | ON | 2008/12/23 18:42 |
| S57 | 8    | (S54 or S55 or S56) and ((heat or thermal) same (shrink or shrinkage)) and ("heat treatment" and "no tension") and "Young's"  | US-PGPUB; USPAT | OR | ON | 2008/12/23 18:43 |
| S58 | 0    | (magnetic and recording and medium and layer and surface and film and formed and aromatic and polyamide and heat and shrinkage and ratio and transverse and direction and subjected and treatment and under and condition and tension and no and for and "30" and min and "180" and C and "1.0" and "2.5" and satisfies and following and equations and simultaneously and MD and TD and being and coefficient and thermal and expansion and longitudinal and respectively and RH and coefficient and hygroscopic and expansion and EMD and GPa and ETD and young's and moduli and EMD and "16" and "0.7" and "1.7").clm. | US-PGPUB; USPAT | OR | ON | 2008/12/23 19:09 |
| S59 | 3    | (428/458 or 428/459).ccls. and ((heat or thermal) same (shrink or shrinkage)) and ("heat treatment" and "no tension") and "Young's"   | US-PGPUB; USPAT | OR | ON | 2008/12/23 19:39 |

12/23/2008 7:41:26 PM

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